

Interview Summary	Application No. 10/070,845	Applicant(s) OXLEY ET AL.	
	Examiner Keith T. Ferguson	Art Unit 2683	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Keith T. Ferguson. (3) _____.
- (2) Dan Nickles. (4) _____.

Date of Interview: 08 February 2006.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____.

Claim(s) discussed: 1-20.

Identification of prior art discussed: none.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The restriction is not needed due to applicant's 34 amendment filed within the miscellaneous letter filed March 11, 2002. In the claims, claim 10, line 1, -- A method comprising:-- will be inserted before "in"; in claim 10, line 2, "a method of" will be deleted; in claim 10, line 3, --;-- will be inserted after "beam"; in claim 10, line 3, "comprising:" will be deleted; in claim 15, line 1, --A method comprising:-- will be inserted before "in"; in claim 15, line 2, "a method of" will be deleted; in claim 15 line 3, --;-- will be inserted after "stations"; in claim 15 line 3, "comprising" will be deleted.

REMARKS

In the Office Action mailed on November 20, 2004 by the United States Patent and Trademark Office, the Examiner required a restriction to one of the following inventions under 35 U.S.C. §121:

- I. Claims 1-10 and 16-21, drawn to a communication apparatus comprising a base transceiver station having a control channel and a non-terrestrial repeater for projecting a beam containing the control channel on the earth, classified in class 455, subclass 431.
- II. Claims 11-15, drawn to a communication system for influencing relative loading on a plurality of access channels in a single beam, class 455, subclass 453.

In response to the restriction requirement, Applicants hereby elect with traverse to prosecute the claims of Invention I, that is, claims 1-10 and 16-21, for prosecution on the merits.

The Examiner states that inventions I and II are unrelated as these two inventions have different modes of operation. However, Applicants respectfully submit that different modes of operation do not exist between the claims 1-10 and 16-21 and claims 11-15. More specifically, the dependent claims of independent claims 1 and 16 conduct at least substantially similar modes of operation to influence relative loading on access channels. For example, dependent claim 2 of alleged invention I provides that "each control channel is assigned a list of access classes to influence a relative loading between access channels" and independent claim 11 of alleged invention II provides for the "performing access class assignments to each of the plurality of control channels" in "a method of influencing relative loading on a plurality of access channels in the single beam." These and other similarities provide for at least the substantially similar modes of operation between the two alleged

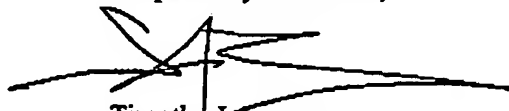
inventions in order to provide load control in a communication system. Accordingly, the Applicants respectfully submit that the restriction requirement is improper and requests withdrawal of this restriction requirement under 35 U.S.C. §121.

The Applicants respectfully submit that this reply is fully responsive to the election requirement mailed on November 30, 2004. However, should the Examiner have any questions or wish to further discuss the above-identified application, Applicants request that the Examiner contact the undersigned at the telephone number associated with customer number 29906.

If for some reason an extension is required to prevent abandonment of this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

Dated 02/03/05


Timothy J. Lorenz
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TO:	Examiner Keith Ferguson	FROM:	Timothy J. Lorenz (Reg. 41,954)
COMPANY:	USPTO - ART UNIT 2683	DATE:	FEBRUARY 3, 2005
FAX NUMBER:	703-872-9306	TOTAL NO. OF PAGES INCLUDING COVER:	4
PHONE NUMBER:		SENDER'S REFERENCE NUMBER:	010.0031 (IRI05277)
RE:	Reply to Election Requirement	REFERENCE NUMBER:	10/070,845
NOTES/COMMENTS:			

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UTILITY PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Derek Alan Oxley Group Art Unit: 2683
Serial No.: 10/070,845 Examiner: Ferguson, Keith
Filed: March 11, 2002 Atty Docket No.: IRI05277
For: COMMUNICATIONS SYSTEM LOAD CONTROL METHODS AND
APPARATUS

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by


Timothy J. Lorenz, Reg. No. 41,594

REPLY TO ELECTION REQUIREMENT

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

In response to the Office Action mailed on November 30, 2004 having a three (3)
month shortened statutory period for reply, please consider the following remarks.

Remarks begin on page 2 of this paper.

ART 34 AMDT

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IPEA/US 31 DEC 2001

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CLAIMS

What is claimed is:

- 5 1. A communications apparatus comprising:
a plurality of base transceiver stations, each having a control channel
associated therewith; and
a non-terrestrial repeater having a first antenna to receive information from
the plurality of base transceiver stations, and a second antenna to project a beam
10 on the earth;
wherein the beam includes the control channel from each of the plurality of
base transceiver stations and each of the control channels has an access channel
associated therewith, and wherein each of the control channels is assigned a list of
access classes that are modified to influence a relative loading between access
15 channels.
2. The communications apparatus of claim 1 wherein each list of access
classes is assigned in a different priority order.
- 20 3. The communications apparatus of claim 2 wherein each of the plurality of
base transceiver stations is configured to remove an access class from the
associated list of access classes in reverse priority order to reduce loading on the
associated access channel.
- 25 4. The communications apparatus of claim 1 wherein each list of access
classes is a unique subset of a total set of access classes.
5. The communications apparatus of claim 4 wherein each of the plurality of
base transceiver stations is configured to remove an access class from the
30 associated list of access classes in random order to reduce loading on the
associated access channel.

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6. A communications apparatus comprising:

a plurality of base transceiver stations, each having a control channel associated therewith; and

5 a non-terrestrial repeater having a first antenna to receive information from the plurality of base transceiver stations, and a second antenna to project a beam on the earth;

wherein the beam includes the control channel from each of the plurality of base transceiver stations and each of the plurality of base transceiver stations has

10 a receive time window and a time offset associated therewith, a time location of the receive time window being a function of the time offset, such that the receive time window defines an area within the beam from which an associated base transceiver station receives communications.

15 7. The communications apparatus of claim 6 wherein:

each control channel has an access channel associated therewith; and

each of the plurality of base transceiver stations is configured to be responsive to each access channel, and to receive communications occurring within the associated receive time window in each access channel.

20

8. The communications apparatus of claim 6 further comprising a controller coupled to each of the plurality of base transceiver stations, the controller being configured to alter time offsets to influence the relative load of each of the plurality of base transceiver stations.

25

9. The communications apparatus of claim 8 wherein the controller is configured to assign lists of access classes to each of the control channels to influence the relative load of each access channel.

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10. In a communications system having a plurality of control channels projected in a single beam, a method of influencing relative loading on a plurality of access channels in the single beam comprising:

performing access class assignments to each of the plurality of control

5 channels; and

modifying the access class assignments to influence loading on the plurality of access channels.

11. The method of claim 10 wherein performing access class assignments

10 includes:

assigning to each of the plurality of control channels a different subset of a total set of access classes.

12. The method of claim 11 wherein modifying the access class assignments

15 includes:

transferring an assignment of one access class from one of the plurality of control channels to another of the plurality of control channels.

13. The method of claim 10 wherein performing access class assignments

20 includes:

assigning a complete set of access classes to each control channel, wherein the complete set of access classes is assigned to each of the plurality of control channels in a different priority order.

14. The method of claim 13 wherein modifying the access class assignments

25 includes:

removing an access class previously assigned to one of the plurality of control channels, wherein the removing is performed in a reverse priority order.

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15. In a communications system having a plurality of base transceiver stations, and a plurality of access channels in a single beam, a method of influencing relative loading on the plurality of base transceiver stations comprising assigning a different time offset to each of the plurality of base transceiver stations, wherein the different time offset for each of the plurality of base transceiver stations defines a time location of a receive time window within which the corresponding base transceiver station monitors the plurality of access channels.
16. The method of claim 15 wherein assigning a different time offset comprises: assigning a different time offset to each of the plurality of base transceiver stations such that at least two time locations of receive time windows overlap in time, producing at least one area of overlap in the beam.
17. The method of claim 16 further comprising: when a channel request is received in one of the plurality of access channels by a first base transceiver station having a first load and by a second base transceiver station having a load larger than the first load, assigning the channel request to the first base transceiver station.
18. The method of claim 16 wherein a first base transceiver station having a first load has a receive time window overlapping with a receive time window of a second base transceiver station having a second load, the method further comprising: when the second load exceeds the first load, reassigning calls from the second base transceiver station to the first base transceiver station.
19. The method of claim 18 further comprising changing a time offset assigned to one of the first base transceiver station and the second base transceiver station to increase a size of the at least one area of overlap in the beam.
20. The method of claim 15 further comprising broadcasting one control channel in the single beam, such that a one-to-many relationship exists between the one control channel and the plurality of access channels.